REMARKS

Applicants request reconsideration of the above-identified application in view of the amendments above and the following remarks.

Claims 1 and 6 are pending in the present application. Applicants have amended claims 1 and 6 herein to more particularly point out and distinctly claim the Applicants' invention. No new matter has been introduced. The amendments of claims 1 and 6 are supported in the specification at for example, page 15, lines 16-18 and line 32 and page 16, line 30.

Claim 1 stands rejected under 35 U.S.C. 103(a) as being obvious over Schmitt et al. WO 92/13901 ("Schmitt") for reasons detailed in the January 21, 2004 Office Action. The Examiner contends that Schmitt teaches adhesive compositions which are tacky within predetermined ranges but nontacky outside of the predetermind ranges, where the adhesive compositions comprise a pressure-sensitive adhesive (PSA) component and 1-50% by weight of a crystalline polymer. The Examiner further states that adhesives made from crystalline polymers having a molecular weight below 25,000 may be removed by heating above a predetermined temperature including side-chain crystalline polymers wherein linear aliphatic C_{16}-C_{22} acrylates and methacrylates are most preferred and molecular weights preferably fall between 3,500 and 12,000. The Examiner also contends that Schmitt provides a table of preferred acrylate and methacrylate monomers along with their melt transition temperatures, teaching that production temperature ranges can be tailored by selecting a crystalline polymer with a melting point within the range and using the necessary amount of crystalline polymer to achieve the desired production temperature range. The Examiner also states that with regards to the limitation that the adhesiveness is "decreased by more than about 90% when heated above about 50°C with respect to the adhesiveness when measured at 25°C", the limitation only requires that the adhesive be capable of such property. Since the crystalline materials and the manner it is used in the adhesive composition as disclosed in Schmitt is the same as those employed by the Applicants, the Examiner contends that the adhesives of Schmitt would possess the

same adhesiveness capability as those of the Applicants. The Examiner further acknowledges that although Schmitt does not specify the amount of tackifier to be added, it is known that inclusion of tackifiers in adhesive compositions increase tack and thus, it would have been obvious to add any conventional amount of tackier to the adhesives of Schmitt's invention to optimize the tack of the adhesives at the temperature where adhesiveness is desired. Applicants disagree with these contentions and believe that they do not apply to amended claim 1.

Applicants respectfully submit that currently amended claim 1 is patentable over Schmitt. Currently amended claim 1 recites a workpiece retainer comprising a pressure-sensitive adhesive and a side-chain crystallizable polymer so that the side-chain crystallizable polymer (1) being present in an amount of about 5% to about 15% by weight, (2) including an acrylic acid ester and/or methacrylic acid ester which has a straight-chain alkyl group including 16 or more carbon atoms as a side chain, (3) having a molecular weight of about 3,000 to about 10,000, (4) having a first order melt transition range of less than about 15°C, (5) a tackifier in an amount of about 15% to about 25% by weight, and (6) the adhesive composition is decreased by more than about 90% when heated above about 50°C, with respect to the adhesiveness when measured at 25°C.

One feature of the claimed invention of amended claims 1 and 6 is that the adhesive composition for the workpiece retainer comprises a pressure-sensitive adhesive and a side-chain crystallizable polymer, wherein the side-chain crystallizable polymer includes a (meth)acrylic acid ester which has a straight-chain alkyl group including 16 or more carbon atoms as a side chain, wherein the side-chain crystallizable polymer has a molecular weight of about 3,000 to 10,000 and wherein adhesiveness of the adhesive composition is decreased by more than about 90% when heated above about 50°C, with respect to the adhesiveness when measured at 25°C.

The effect of the claimed invention of amended claims 1 and 6 is that the workpiece retainer can adhere the workpiece (e.g. wafer) strongly, stably, and accurately when polishing a workpiece, and the workpiece can easily be peeled off the

workpiece retainer by simply heating the workpiece retainer after polishing the workpiece, without requiring washing with any conventional organic solvents and/or surfactants (see, e.g., the specification at page 7, lines 7-13).

Another feature of the claimed invention of amended claims 1 and 6 is that the adhesive composition for the workpiece retainer further comprises a tackifier in the amount of about 15% to about 25% by weight. As disclosed at page 6, line 23 to page 7, line 5, and page 16, line 27 to page 17, line 3, a predetermined level of adhesiveness with respect to the base plate surface can be retained at ordinary temperatures, whereas a rapid decrease in adhesion strength can be caused by heating. Thus, a tackifier present in the above-mentioned amount does not substantially influence the temperature sensitivity of the polymer. As a result, the adhesive composition according to the present invention exhibits sufficient adhesion strength at ordinary temperatures, while maintaining a good balance between the adhesion strength at ordinary temperatures and the peeling force required at elevated temperatures.

In fact, if the tackifier content is less than about 15% by weight based on the adhesive composition, sufficient adhesion strength is not attained at ordinary temperatures, and if the tackifier content is more than about 25% by weight, the rate of decrease of adhesion strength is not sufficient at the time of peeling at a high temperature (e.g. 60°C).

Schmitt does not disclose or suggest the use of a temperature-sensitive adhesive for a workpiece retainer and the adhesive composition as described in amended claim 1. Schmitt also does not disclose of suggest the amount of tackifier to be added to the composition. Nor does Schmitt disclose or suggest the above-described effect of the claimed invention of amended claims 1 and 6. Accordingly, amended claim 1 is not rendered obvious by Schmitt.

Claim 6 stands rejected under 35 U.S.C. 103(a) as being obvious over Schmitt in view of Newman United States patent 5,468,231 ("Newman") for reasons detailed in the January 21, 2004 Office Action. The Examiner contends that the

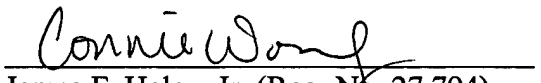
Schmitt teaches the use of the adhesives for medical purposes but failing to mention a double-sided tape construction. The Examiner states that Newman teaches a conventional double-sided tape construction having a backing material coated on both sides with a PSA material. The Examiner contends that it would have been obvious to use the PSA of Schmitt's invention in a double-sided tape construction as taught by Newman to provide an article capable of adhering two different materials. Applicants disagree with these contentions and believe that they do not apply to amended claim 6.

Applicants respectfully submit that currently amended claim 6 is patentable over Schmitt in view of Newman. Neither Schmitt (as discussed above) nor Newman, either singly or combined, discloses or suggests the use of a temperature-sensitive adhesive for a workpiece retainer and the adhesive composition as described in amended claim 6. The Examiner's contention that it would have been obvious to use Schmitt's PSA in Newman's double-sided tape construction does not take into account that Schmitt's PSA is not Applicants' claimed invention of amended claim 6 (as discussed above). Therefore, the combination of these two references also does not teach or suggest Applicants' claimed invention of amended claim 6. In fact, the Examiner agrees that Schmitt does not specify the amount of tackifier to be added. As discussed herein, that amount is an important element of the claimed invention. Accordingly, amended claim 6 is not rendered obvious by Schmitt in view of Newman.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request that the Examiner pass this application to issue.

Respectfully submitted,



James F. Haley, Jr. (Reg. No. 27,794)
Stanley D. Liang (Reg. No. 43,753)
Attorneys for Applicants
Connie Wong (Limited Recognition)
Agent for Applicants
c/o FISH & NEAVE
Customer No. 1473
1251 Avenue of the Americas
New York, New York 10020
Tel.: (212) 596-9000